## ABSTRACT

The invention relates to a process for the production of gasoline with a low sulfur content comprising at least three stages: a first stage in which the sulfur-containing compounds present in the gasoline are at least partially transformed into H2S and into saturated sulfur-containing compounds; a second stage whose purpose is to eliminate the H2S from the gasoline produced in the first stage; and a third stage in which the saturated sulfur-containing compounds remaining in the gasoline are transformed into H2S. The process according to the invention optionally also comprises a pretreatment stage whose purpose is to hydrogenate the diolefins of the feedstock before the first stage.